

CLAIMS

What is claimed is:

1. A method of facilitating location detection, comprising:
- storing information relating to position detection assisting devices in a mobile terminal;
- 5 referencing said information to determine a subset of the position detection assisting
devices which are available from which to determine location; and
- requesting contemporary information about said subset from a mobile network.
2. The method of claim 1 further comprising receiving an inquiry as to the present location of
10 the mobile terminal.
3. The method of claim 2 wherein receiving an inquiry as to the present location of the mobile
terminal originates in the mobile terminal.
4. The method of claim 2 wherein receiving an inquiry as to the present location of the mobile
15 terminal originates in a mobile network associated with the mobile terminal.
5. The method of claim 2 wherein receiving an inquiry as to the present location of the mobile
terminal originates in a server communicatively connected to a mobile network associated with
20 the mobile terminal.
6. The method of claim 1 wherein requesting contemporary information about said subset from a
mobile network comprises evaluating a time stamp to determine whether the mobile terminal

already has contemporary information about one or more position detection assisting devices in said subset.

7. The method of claim 6 wherein requesting contemporary information comprises requesting
5 contemporary information about only those in said subset about whom contemporary
information is not available in the mobile terminal.

8. The method of claim 6 wherein evaluating a time stamp comprises evaluating a time stamp to
determine if said time stamp falls within a predetermined threshold.

9. The method of claim 8 wherein evaluating a time stamp to determine if said time stamp falls
within a predetermined threshold comprises evaluating if said time stamp is more than four hours
old.

10. The method of claim 1 wherein requesting contemporary information about said subset from
a mobile network comprises requesting contemporary information from a server within the
mobile network.

11. The method of claim 1 wherein requesting contemporary information about said subset from
20 a mobile network comprises requesting contemporary information from a server
communicatively connected to said mobile network.

12. The method of claim 1 further comprising receiving the contemporary information at the mobile terminal and locating said mobile terminal based on information received from said subset of position detection assisting devices.

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13. The method of claim 12 further comprising reporting the location of the mobile terminal as determined by said locating step.

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14. The method of claim 1 wherein referencing said information to determine a subset of the position detection assisting devices which are available comprises determining a subset comprising only the position detection assisting devices necessary and sufficient from which to determine location.

15. A mobile terminal comprising:

a transceiver; and

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a control system operatively connected to said transceiver, wherein said control system stores information relating to a plurality of position detection assisting devices within a position detection system and solicits contemporary information from a mobile network via said transceiver relating to a subset of said position detection assisting devices.

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16. The mobile terminal of claim 15 wherein said control system determines a present location of the mobile terminal after soliciting said contemporary information.

17. The mobile terminal of claim 15 wherein information relating to a plurality of position detection assisting devices comprises information about a satellite-based position detection system.

5 18. The mobile terminal of claim 17 wherein said information comprises information relating to a plurality of satellites within a GPS.

19. The mobile terminal of claim 15 wherein said information relating to a plurality of position detection assisting devices comprises information about a terrestrial position detection system.

20. The mobile terminal of claim 15 wherein said information relating to a plurality of position detection assisting devices comprises information relating to a mixed satellite based and terrestrial position detection system.

21. A communication system comprising:

a server comprising contemporary information relating to a position detection system;

a mobile network; and

a mobile terminal communicatively connected to said server through said mobile network, said mobile terminal storing local information relating to the position detection system and soliciting a subset of said contemporary information from said server based in part on said local information.

22. The communication system of claim 21 wherein said local information comprises an almanac.

23. The communication system of claim 21 wherein said contemporary information comprises satellite ephemeris.

24. The communication system of claim 21 wherein said mobile terminal determines a number of available position detection assisting devices within the position detection system based on a coarse location of the mobile terminal.

25. The communication system of claim 21 wherein said server forms a part of said mobile network.

26. The communication system of claim 21 wherein said server is communicatively connected to said mobile network.

27. A method of facilitating location detection, comprising:

storing information relating to position detection assisting devices in a mobile terminal;

referencing said information to determine a subset of the position detection assisting

devices which are theoretically visible from which to determine location;

receiving signals from position detection assisting devices which are actually visible to the mobile terminal; and

requesting contemporary information about the position detection assisting devices which are actually visible from a mobile network.

28. A method of facilitating location detection using a satellite based positioning system, comprising:

securing at a mobile terminal, from a mobile network accurate time, doppler, and code phase information for satellites that are theoretically available;

acquiring a signal from one or more of the satellites that are theoretically available; and

requesting ephemeris information only for those satellites previously acquired.

29. A method of facilitating location detection using a satellite based positioning system, comprising:

evaluating an almanac within a mobile terminal to determine which satellites are theoretically available based on a coarse location and time of the mobile terminal;

5 securing at the mobile terminal, from a mobile network accurate time information for satellites that are theoretically available;

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deriving, at the mobile terminal, doppler and code phase information for the satellites that are theoretically available;

acquiring a signal from one or more of the satellites that are theoretically available; and

10 requesting ephemeris information only for those satellites previously acquired.

30. The method of claim 29 wherein requesting ephemeris information comprises requesting ephemeris information for only those satellites whose previously stored ephemeris information is stale.

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31. The method of claim 29 wherein acquiring a signal comprises evaluating a signal quality measurement.

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